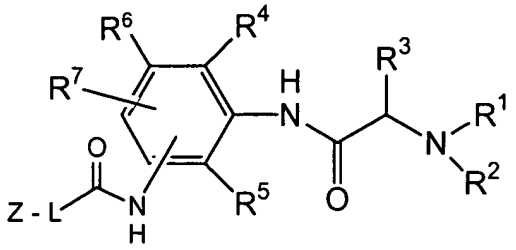
ABSTRACT OF THE DISCLOSURE

Lidocaine analogs, latex particle-analog conjugates, and methods of making and using the same. The analogs have the formula:



Formula 1

wherein

Z comprises a nucleophilic group and optionally a protecting group;

L is a linker;

R^1, R^2, R^3, R^4, R^5 are each independently H, a protecting group, or C_1 to C_6 alkyls, provided that R^1 and R^3 may form a six membered ring with the nitrogen and carbon atom to which R^1 and R^3 are attached;

R^6 and R^7 are each independently H or C_1 to C_{20} alkyls;

and including salts thereof.

The analogs are immobilized on latex particles and prepared for use in assays for lidocaine.